

A NEW SPECIES AND A NEW RECORD SPECIES OF GENUS CONICERA (DIPTERA, PHORIDAE) FROM CHINA

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Abstract *Conicera digitalis* Liu et Zhang, sp. nov., from Xinjiang, China is described and illustrated. *Conicera quadrata* Michailovskaya is reported for the first time from China. Type specimens of the new species are deposited in College of Biological and Environmental Engineering, Shenyang University, Shenyang.

Key words Diptera, Phoridae, *Conicera*, new species, China.

Thirty-six species of *Conicera* (Phoridae) were recorded in the world, with 19 species recorded from the Palearctic Region (Disney, 1991; Liu, 2000; Michailovskaya, 2000). The rest species are recorded from the Nearctic, Neotropical and Oriental Regions. Nine species were reported from China mainland (Liu, 1998). Recently we examined the specimens of the genus collected from China and found a new species from Xinjiang and a new record species from Liaoning. The type specimens of the new species are deposited in College of Biological and Environmental Engineering, Shenyang University.

Conicera digitalis Liu et Zhang, sp. nov. (Figs. 1–3)

Male. Frons black. Antero-lateral bristles wanting. Supra-antennals short. Antials a little closer together than pre-ocellars, and the latter slightly lower than medio-lateral bristles. Antenna dark brown. Palps dark yellow and with 7 short bristles.

Thorax dark brown and with a pair of dorso-central bristles. Scutellum with an anterior pair of small hairs and a posterior pair of bristles. Legs dark brown, fore legs somewhat paler. Fore tibia with 10 dorsal spines below a bristle at the end of basal quarter. Mid femur without a sensory organ. Mid tibia with 1 dorsal and 2 anterior bristles in distal and apical quarter, apart from long ventral apical spur. Dorsal bristle is as long as basal anterior bristle, but the latter is much higher, which is longer than distal one. Hind tibia with 2 dorsal bristles at the end of basal and middle third respectively, and one of the antero-dorsal bristles roughly on same level with upper dorsal, the other at tip of tibia. At the end of tibia there is ctenidia which formed by microscopical hairs.

Wings 1.38 mm long. Costal index 0.38. Costal ratios 2.4: 1.0. Veins brown except vein $A_1 + CuA_2$ which is pale grey. Base of vein Rs with a small hair.

Axillary ridge with a single bristle. Haltere dark brown.

Abdomen with brown tergites bearing minute hairs. Tergites 2 and 6 are much longer than others. Hypopygium dark brown. Right epandrium elliptical, with a postero-dorsal elongated finger-shaped process. Left lobe of epandrium kidney shaped, with a small quadrate dorsal lobe. Both left and right lobes of epandrium with many inward teeth in distal arched brim (teeth length 0.009 mm).

Female. Unknown.

Holotype ♂, Yili, Xinjiang, 13 Aug. 2004, FANG Hong and HAN Hong-Tao. Paratypes: 1 ♂, data same as the holotype; 1 ♂, Datong, Qinghai Province, 30 July 2004, FANG Hong.

Remarks. This species is similar to *C. reniformis* Liu but differs from the latter in having shorter teeth of epandrium, much longer postero-dorsal process of epandrium (about three times as long as that of *C. reniformis* Liu), and the quadrate dorsal lobe of left epandrium.

Conicera quadrata Michailovskaya

Conicera quadrata Michailovskaya, 2000: 26.

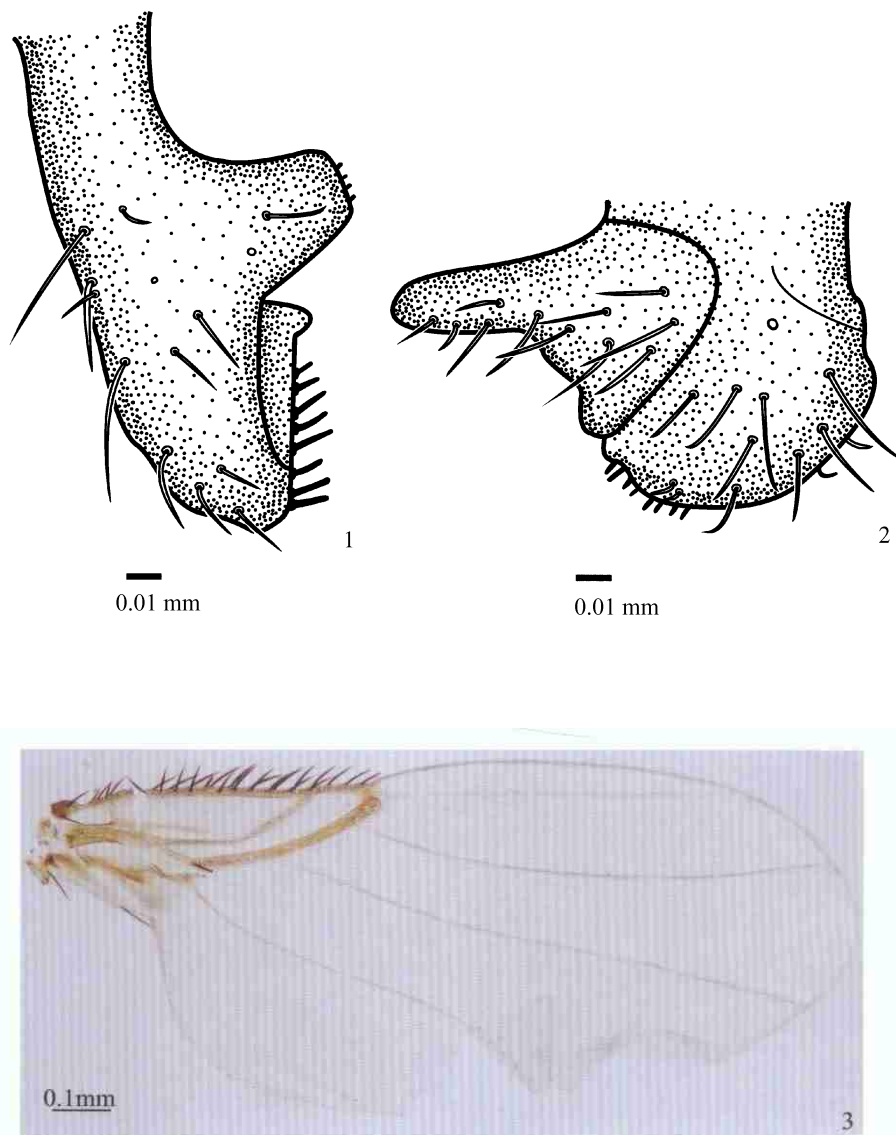
Male. Frons brown. Antero-lateral bristles present. Supra-antennals short. Antero-laterals about half length of medio-laterals. Antennal brown. Palps yellowish brown, paler at base, with 8 bristles.

Thorax dark brown and with a pair of dorso-central bristles. Legs yellowish brown, fore legs somewhat paler. Mid femur without sensory organ. Hind tibia with two dorsal bristles in the end of the basal and middle third respectively, and one antero-dorsal bristle, which is roughly on the same level with the upper dorsal, but remarkably shorter. The upper dorsal bristle is clearly longer than the lower one.

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Figs 1-3. *Conicera digitidis* Liu et Zhang, sp. nov. 1. Hypopygium (left and right view). 3. Wing.

Wing length 0.94 mm. Costal index 0.41. Costal ratio 1.65: 1.00. Base of Rs with a short hair. A single bristle on axillary ridge. Halteres brown.

Abdominal tergites brown, with scarce minute hairs confined mainly to posterior third of each sclerite. Hypopygium brown. Left epandrium of elaborated form, with arched row of short spines on inner surface and scattered longish hair throughout the outer surface. Right epandrium roughly quadrate, covered with numerous long hairs on the outer surface and with several spinules on inner surface. Dorsal lobe of right epandrium developed only as small tubercle.

Female. Unknown.

Specimen examined. 1 ♂, China, Qianshan, Liaoning Province. 5 July 2004, FANG Hong.

REFERENCES

- Disney, R. H. L. 1990 A revised key to Australasian and Oriental *Conicera* (Diptera: Phoridae), with 3 new species. *Ent. Scand.*, 21: 339-344.
- Disney, R. H. L. 1991. Family Phoridae. In: Soós, A. and Papp, L. (eds.), *Catalogue of Palaearctic Diptera*, 7 (Dolichopodidae: Platypezidae), Budapest. pp. 143-204.
- Liu, G. C. 2000. Taxonomic study on *Conicera* Meigen (Diptera: Phoridae) from China. In: Zhang, Y. (ed.), *Systematic and Faunistic Research on China Insects*, Proceedings of the 5th National Congress on Insect Taxonomy. pp. 162-173.
- Liu, G. C. 2001. A Taxonomic Study of Chinese Phorid Flies (Diptera: Phoridae) (part 1). NEU Press, Shenyang. pp. 111-126.
- Michailovskaya, M. V. 2000. Review of the genus *Conicera* Meigen (Diptera: Phoridae) from Russia. *International Journal of Dipterological Research*, 11 (1): 9-13.
- Mostovski, M. B. and Disney, R. H. L. 2003. New species of *Conicera* Meigen (Diptera: Phoridae) from the far east, with notes on other species and a new synonym. *Entomologist's Monthly Magazine*, 31: 43-48.

中国锥蚤蝇属 (双翅目, 蚤蝇科) 一新种和一新纪录种

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摘 要 记述了中国蚤蝇科锥蚤蝇属 *Conicera* 1 新种和 1 新纪录种, 指突锥蚤蝇 *Conicera digitalis* sp. nov. 和方叶锥蚤蝇 *Conicera quadrata* Michailovskaya。指突锥蚤蝇与肾叶锥蚤蝇相

似, 但两者在前缘脉指数及侧尾叶形状上有所区别。模式标本存于沈阳大学生物与环境工程学院。

关键词 双翅目, 蚤蝇科, 锥蚤蝇属, 新种, 中国.

中图分类号 Q969. 451. 8